

CLAIMS

What is claimed is:

1. A pogo-ski, comprising in combination:
a ski providing means for sliding on a sliding surface,
a lower post projecting upward from said ski and connected to said ski by lower post connecting means,
a left foot support connected by left foot support connecting means to said lower post above said ski which left foot support serves as means for supporting the left foot of a user,
a right foot support connected by right foot support connecting means to said lower post above said ski which right foot support serves as means for supporting the right foot of said user,
and handhold means for being holdable by at least one hand of said user, which handhold means are connected by handhold connection means to an upper post, which upper post is connected by upper post connecting means to said lower post and which upper post is substantially located above said lower post.
2. The pogo-ski of claim 1, wherein said sliding surface is a snow surface.
3. The pogo-ski of claim 1, wherein said sliding surface is a frozen surface.
4. The pogo-ski of claim 1, wherein said sliding surface is a water surface.

5. The pogo-ski of claim 1, wherein said sliding surface is a low-friction solid sliding surface.
6. The pogo-ski of claim 5, wherein said low-friction solid sliding surface uses a Teflon surface coating.
7. The pogo-ski of claim 1, wherein the majority of said user's weight is supported by said left foot support and said right foot support and the balance of said user's weight is supported by said handhold means, when said user is riding on said pogo-ski in a non-accelerating condition.
8. The pogo-ski of claim 1, wherein said lower post connecting means includes a spring acting between said lower post and said ski.
9. The pogo-ski of claim 1, wherein said lower post connecting means includes a damper acting between said lower post and said ski.
10. The pogo-ski of claim 1, wherein said lower post is of substantially circular cross-section.
11. The pogo-ski of claim , wherein said lower post is of noncircular cross-section.
12. The pogo-ski of claim 1, wherein said left foot support is located on the left side of said lower post.

13. The pogo-ski of claim 1, wherein said right foot support is located on the right side of said lower post.
14. The pogo-ski of claim 1, wherein said left foot support connecting means and said right foot support connecting means are coupled together.
15. The pogo-ski of claim 14, wherein said left foot support connecting means and said right foot support connecting means coupled together provide at least one spring in the connection between said left foot support and said right foot support on the one hand, and said lower post on the other hand.
16. The pogo-ski of claim 14, wherein said left foot support connecting means and said right foot support connecting means coupled together provide at least one damper in the connection between said left foot support and said right foot support on the one hand, and said lower post on the other hand.
17. The pogo-ski of claim 1, wherein said left foot support connecting means and said right foot support connecting means include pitch-axis hinge means for permitting pitch-axis rotation of said left foot support and of said right foot support.
18. The pogo-ski of claim 1, wherein said left foot support connecting means and said right foot support connecting means include roll-axis hinge means for permitting roll-axis rotation of said left foot support and of said right foot support.

19. The pogo-ski of claim 1, wherein said left foot support connecting means and said right foot support connecting means include yaw-axis hinge means for permitting yaw-axis rotation of said left foot support and of said right foot support.
20. The pogo-ski of claim 1, wherein said left foot support connecting means includes left translational motion permitting means for permitting said left foot support to move in a direction including a vertical component, and wherein said right foot support connecting means includes right translational motion permitting means for permitting said right foot support to move in a direction including a vertical component.
21. The pogo-ski of claim 20, further comprising translational motion linking means for requiring an upward translational motion of said left foot support whenever said right foot support executes a downward translational motion and for requiring a downward translational motion of said left foot support whenever said right foot support executes an upward translational motion.
22. The pogo-ski of claim 21, wherein said translational motion linking means comprises rack and pinion means including a left rack connected to at least one of said left foot support and said left foot support connecting means, and a right rack connected to at least one of said right foot support and said right foot support connecting means, and a common pinion which mates with both said left rack and said right rack.
23. The pogo-ski of claim 20, further comprising a linking cable which runs around pulley means attached to said lower post and which linking cable is connected on one side of said

pulley means to at least one of said left foot support and said left foot support connecting means, and is connected on the other side of said pulley to at least one of said right foot support and said right foot support connecting means.

24. The pogo-ski of claim 23, wherein said linking cable includes an elastic element permitting it to effectively stretch.
25. The pogo-ski of claim 23, wherein said linking cable includes a viscoelastic element.
26. The pogo-ski of claim 21, wherein said translational motion linking means includes a hydraulic linking tube with left and right connections to the left foot support and right foot support respectively.
27. The pogo-ski of claim 21, wherein said translational motion linking means includes a pneumatic linking tube with left and right connections to the left foot support and right foot support respectively.
28. The pogo-ski of claim 1, wherein said left foot support connecting means provides a spring in the connection between said left foot support on the one hand, and said lower post on the other hand.
29. The pogo-ski of claim 1, further comprising spring means for providing a spring force with a vertical component between said ski and said left foot support.

30. The pogo-ski of claim 1, wherein said left foot support connecting means provides a damper in the connection between said left foot support on the one hand, and said lower post on the other hand.
31. The pogo-ski of claim 1, further comprising damper means for providing a damping force with a vertical component between said ski and said left foot support.
32. The pogo-ski of claim 1, wherein said right foot support connecting means provides a spring in the connection between said right foot support on the one hand, and said lower post on the other hand.
33. The pogo-ski of claim 1, further comprising spring means for providing a spring force with a vertical component between said ski and said right foot support.
34. The pogo-ski of claim 1, wherein said right foot support connecting means provides a damper in the connection between said right foot support on the one hand, and said lower post on the other hand.
35. The pogo-ski of claim 1, further comprising damper means for providing a damping force with a vertical component between said ski and said right foot support.
36. The pogo-ski of claim 1, wherein said left foot support and said right foot support each include a foot plate on which the left foot and right foot of the user, respectively, can be supported.

37. The pogo-ski of claim 36, wherein said left foot support and said right foot support each include foot enclosing surfaces connected to said foot plate, which foot enclosing surfaces enclose the sides and top of said left foot and right foot of the user, respectively.
38. The pogo-ski of claim 36, wherein said left foot support and said right foot support each include strap means connected to said foot plate, which strap means restrain lateral and upward movement of said left foot and right foot of the user, respectively.
39. The pogo-ski of claim 36, wherein said left foot support and said right foot support each include a toe clip connected to said foot plate.
40. The pogo-ski of claim 1, wherein said left foot support and said right foot support each include binding means for permitting left and right boots of said user to be securely attached to said left foot support and said right foot support, respectively.
41. The pogo-ski of claim 1, wherein said upper post is of substantially circular cross-section.
42. The pogo-ski of claim 1, wherein said upper post is of noncircular cross-section.
43. The pogo-ski of claim 1, wherein said upper post connection means includes means for setting the height of said handhold means at different levels.

44. The pogo-ski of claim 43, wherein said upper post connection means comprises a telescopic slidable connection between said upper post and said lower post.
45. The pogo-ski of claim 43, wherein said means for setting the height include a quick-release mechanism.
46. The pogo-ski of claim 1, wherein said handhold means comprises a single bar suitable for holding by either one or both hands of said user, and said handhold connection means comprises left and right connecting rods going down from the left and right sides of said single bar down to a connection fitting on top of said upper post.
47. The pogo-ski of claim 1, wherein said handhold means comprises left and right handlebars suitable for holding by the left and right hands of said user, respectively, and wherein said handhold connection means comprises means for connecting said left and right handlebars to the top of said upper post.
48. The pogo-ski of claim 47, wherein said left and right handlebars include contoured surfaces which can be gripped by the fingers of the left and right hands of said user.
49. The pogo-ski of claim 47, further comprising telescoping means for varying the spacing between the left end of the left handlebar and the right end of the right handlebar.

50. The pogo-ski of claim 47, further comprising folding means for stowing said handlebars in a configuration with reduced spacing between the left end of the left handlebar and the right end of the right handlebar.
51. The pogo-ski of claim 1, wherein said lower post connecting means provides a detachable connection between said ski and said lower post.
52. The pogo-ski of claim 1, wherein said lower post connecting means provides a connection with variable angle between said ski and said lower post.
53. The pogo-ski of claim 1, wherein said ski has a ski shovel at its forward extremity.
54. The pogo-ski of claim 1, wherein said ski has a ski shovel at its aft extremity.
55. The pogo-ski of claim 1, wherein said ski has camber to distribute load along its running surface when said user is on said pogo-ski with said user's feet supported by said left foot support and said right foot support.
56. The pogo-ski of claim 1, further comprising a low-friction lower running surface.
57. The pogo-ski of claim 1, wherein said ski has outwardly concave curved edges when viewed in plan view.

58. The pogo-ski of claim 1, further comprising sharp cornered edges along the lower left and right corners of said ski when viewed in transverse cross-section.
59. The pogo-ski of claim 1, wherein said ski is thicker near the location of said lower post connecting means than at locations near the forward and aft ends of said ski.
60. The pogo-ski of claim 1, wherein said ski is a downhill type of ski.
61. The pogo-ski of claim 1, wherein said ski is a ski-jumping type of ski.
62. The pogo-ski of claim 1, wherein said ski is a short ski.
63. The pogo-ski of claim 1, wherein said ski is a snowboard.
64. The pogo-ski of claim 1, wherein said ski is a water-ski.
65. The pogo-ski of claim 1, wherein said user can impart a rolling moment on said ski by shifting his or her weight laterally.
66. The pogo-ski of claim 1, wherein said user can impart a rolling moment on said ski by shifting the amount of his or her weight acting on said left foot support as compared with the amount of his or her weight acting on said right foot support.

67. The pogo-ski of claim 1, said user can impart a rolling moment on said ski by applying a rolling moment to said handhold means.
68. The pogo-ski of claim 1, wherein said user can impart a yawing moment on said ski by pushing forward with a foot on either the left foot support or the right foot support.
69. The pogo-ski of claim 1, wherein said user can impart a yawing moment on said ski by applying a yawing moment to said handhold means.
70. The pogo-ski of claim 1, with spring means in at least one of said lower post connecting means, said left foot support connecting means, said right foot support connecting means and said upper post connecting means, for enabling said user to deliberately and repeatedly bounce while skiing on said pogo-ski.
71. The pogo-ski of claim 1, further comprising hand control means integrated with said handhold means and suitable for said user to make a control input to said pogo-ski.
72. The pogo-ski of claim 1, further comprising foot control means connected to at least one of said left foot support or said right foot support and suitable for said user to make a control input to said pogo-ski.
73. The pogo-ski of claim 1, further comprising braking control means for increasing friction or drag acting on said pogo-ski as it moves over said sliding surface.

74. The pogo-ski of claim 1, further comprising steering means for controllably engaging said sliding surface so as to generate a desired yawing moment acting on said ski.
75. The pogo-ski of claim 1, further comprising a safety strap suitable for connecting said pogo-ski to said user and suitable for preventing said pogo-ski from sliding away from said user in the event that said user falls from said pogo-ski.
76. The pogo-ski of claim 1, further comprising tow cable engagement means for engaging a tow cable intended for towing said pogo-ski along with said user riding thereon.
77. The pogo-ski of claim 1, further comprising chairlift engagement means for enabling said pogo-ski to hang from said chairlift while said user is riding on said chairlift in a seated posture.
78. A pogo-ski, comprising in combination:
a ski providing means for sliding on a sliding surface,
a lower post projecting upward from said ski and connected to said ski by lower post connecting means,
a left foot support connected by left foot support connecting means to said pogo-ski above said ski, which left foot support serves as means for supporting the left foot of a user,
a right foot support connected by right foot support connecting means to said pogo-ski above said ski, which right foot support serves as means for supporting the right foot of said user,

and handhold means for being holdable by at least one hand of said user, which handhold means are connected by handhold connection means to an upper post, which upper post is connected by upper post connecting means to said lower post and which upper post is substantially located above said lower post.

79. A pogo-ski, comprising in combination:

a ski providing means for sliding on a sliding surface,

a left lower post and a right lower post projecting upward from said ski and connected to said ski by lower post connecting means,

a left foot support connected by left foot support connecting means to said left lower post above said ski which left foot support serves as means for supporting the left foot of a user,

a right foot support connected by right foot support connecting means to said right lower post above said ski which right foot support serves as means for supporting the right foot of said user,

and handhold means for being holdable by at least one hand of said user, which handhold means are connected by handhold connection means to an upper post, which upper post is connected by upper post connecting means to at least one of said left lower post and said right lower post, and which upper post is substantially located above at least one of said left lower post and said right lower post.

80. The pogo-ski of claim 79, wherein said handhold means comprises a left handhold and a right handhold, wherein said left handhold is connected by left handhold connection means to a left upper post, which left upper post is connected by left upper post connecting means to said left lower post and which left upper post is substantially located above said left lower

post, and wherein said right handhold is connected by right handhold connection means to a right upper post, which right upper post is connected by right upper post connecting means to said right lower post and which right upper post is substantially located above said right lower post.

81. The pogo-ski of claim 1, further comprising spring means between said left foot support and said right foot support on one hand, and said ski on the other hand, for enabling said user to exert a force on said ski by stamping down with force on at least one of said left foot support and said right foot support, which spring means is aligned at an angle upward and forward from the ski such that said force has a backward force component acting on said ski, and further comprising surface-engaging edge means on the bottom of said ski for producing a forward thrust force on said ski in reaction to an aft force imparted to the sliding surface by said backward force component.